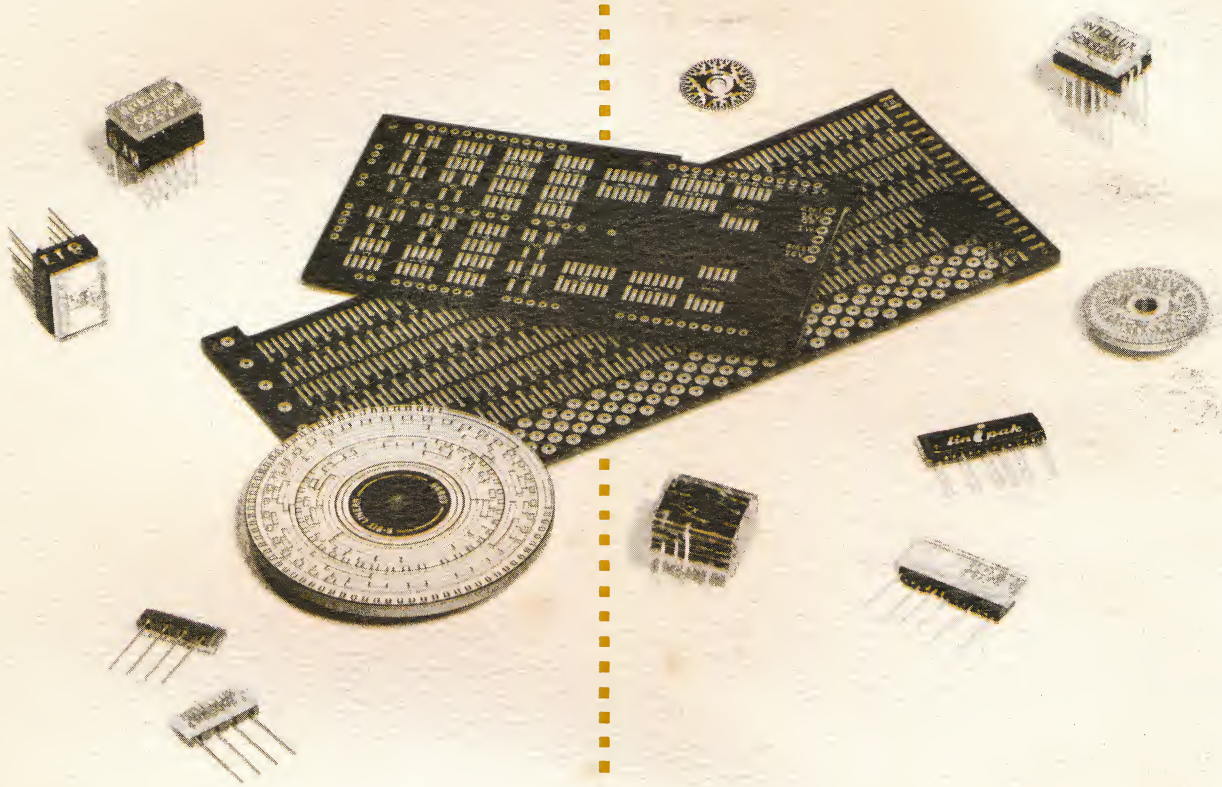
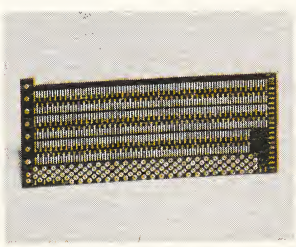


intellux

INCORPORATED

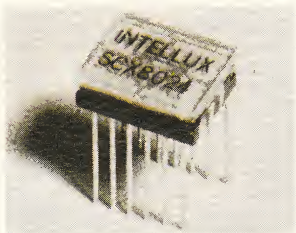
MULTILAYER PRINTED WIRING BOARDS



Intellux Multilayer Printed Wiring Boards are three-dimensional electro formed circuits within a mechanical support. Outstanding reliability of complex crossover circuitry is assured because each individual circuit — whether it is single or multiple plane — is a monolithic structure of electrolytic copper. Junctions are eliminated and interlayer connections are posts of solid copper. Reliability is immeasurably improved by eliminating ordinary techniques that are marginal. There are no conductive pastes, plated-through holes or solder joints within the circuitry structure.

The Intellux process offers both economic and functional advantages where the circuit requires more than two layers of electrical crossover.

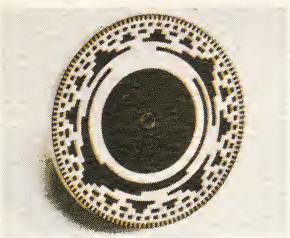
INTELLUX HYBRID MICROCIRCUITS



Reliability, compact design and a price commensurate with uncompromised high quality are the fundamental characteristics of Intellux Hybrid Microcircuits.

Additional advantages include ready application of existing designs or special designs to specifications. Methods of manufacture include: Passive components deposited on a glass substrate / A fused glass substrate hermetically sealing the components / Interconnections of components provided by a superposed, photo-etched, gold-plated, copper wire pattern / As a final step, the resistors and capacitors are connected to the header with epoxy resin and leads are attached. Rigid inspection and careful packaging for shipment complete the process.

PRECISION FLUSH CIRCUITRY

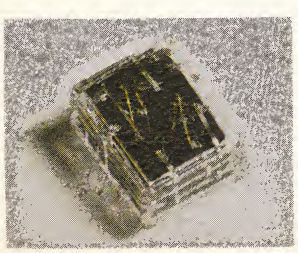


Intellux Precision Flush Circuitry is specifically made to fill the exacting requirements of modern high-bit encoding systems and for other noise-free high angular or segment-accuracy switching mechanisms.

Discs are made by the Intellux patented "transfer process." It is the only commercial technique available whereby surface flushness, in the order of one micron, is a standard production practice.

Another exclusive Intellux process enables the incorporation of complex interconnection and crossover circuitry within the supporting substrate of the disc. Terminations can then be located in any convenient area on either the front or rear surface of the disc. Sub-surface circuitry can be inter-connected without interfering with the commutating surface.

CUSTOM THIN FILM MICROCIRCUITS



The prominence of Intellux in the hybrid microcircuit field stems directly from an extensive background in thin film technology. This experience has established a capability for creation of custom designs in a variety of configurations to exacting specifications.

The Intellux process offers:

* Transformation of existing discrete circuitry systems.
* Improved performance, reliability and space utilization.
* Economy in setup and tooling preparation.
* High volume production with minimum lead time.

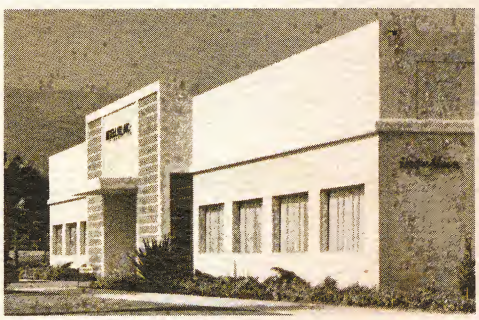
INTELLUX, INC.
BIOGRAPHIC DATA

Intellux, Inc., a company with over twenty years of growth and diversification in the specialized field of thin film, precision flush and multilayer circuitry started in 1945 as the Glass Products Company in Chicago. Nine years later, the entire operation transferred to Santa Barbara, California where a unique facility was established for further development of specialized products.

Intensive research and development through the years preceding this move resulted in a patented transfer process that guarantees surface flushness and dimensional tolerances in circuitry not attainable in other known processes. Success in this field established Intellux as the nation's leading supplier of encoder discs. Further research and development resulted in the new multilayer printed circuit board fabrication technique perfected which eliminates plated-through holes, conductive pastes or solder joints.

In 1960, the company name became Intellux, Inc. The new facility in Santa Barbara Research Park is engaged in volume production of thin film electronic devices, precise switching commutators, multilayer printed wiring boards, encoder discs and interconnection systems. In support of its planned growth, continuous research and development is being sponsored.

Intellux employs approximately 150 people in their 35,000 square foot facility and enjoys a large volume of business each year as a leader in the electronic component industry.



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